Mr. R. V. Le Sueur

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The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta June 28th, 1945.

VOLUME 32

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9.30 A. M. Session,
June 28th, 1945.

J. A. McCUTCHIN, re-called, cross-examined by Mr. Chambers, testified as follows:-

Q Mr. McCutchin, it is a fact, is it not, that your company has installed heaters on your residue gas line from your absorption plant to the Madison Scrubbing Plant?

A Yes sir.

Q Why were they installed?

A They were installed because we ran into hydrate troubles when we started up last winter, and it was necessary to either dehydrate the gas at considerable expense or put in heaters. There are five heaters on this line, the total being an average of 1 heater every two miles. Three of the heaters are operated from existing Madison heating stations, and two of them are independently operated.

Q Now, Mr. McCutchin, as I understand it from the evidence that was given on the question of the reserves, that in addition to the crude oil wells and the crude oil areas in Turner Valley, there are what is commonly referred to as three gas caps, first, the B.A. gas cap in the South end, and the G.O.P. gas cap in the vicinity of the G.O.P. Plant, near Hartell, and the Royalite gas cap, and when I am talking of the Royalite gas cap I also include the Sterling Pacific, is that right?

A The designation, I believe, of the three gas caps was one of convenience more than anything else, not a necessary geological condition. There might be some geological condition, but the idea was that we just divide the field into the three areas for convenience.

Q Now talking of this question of the sharing of the market,

each of those gas caps has or it is suggested it should have its well allowable fixed on an annual basis, or, in any event, of a period, on a basis of a period longer than a month?

A. Yes sir.

Q As I understand it, your Company, the B.A., proposes and intends actually to produce from its gas cap its full allowable for the period, as fixed from time to time by the Conservation Board's order, no matter what that period is?

A Yes sir, we intend to produce gas cap allowables at the yearly period. At the yearly period.

Q Yes?

A Meaning that we might not produce every month the same quantity even, but it will be handled at the convenience of the market.

Q But we will assume first of all that the gas cap allowable for the B.A. gas cap area is fixed for a year?

A That is right.

Q It is proposed by your company that during that year sometimes you will have produced the full allowable?

A Essentially all of it, yes.

Q But that even that period you contemplate taking production from the gas cap area at times when the market demand is the greatest, is that a fair way to put it?

A Yes, and when the equipment can handle, of course.

Q Yes?

A The two objectives to be met are, one, not to flare any gas, the other is to meet the market.

Q Now on the other hand I understand that it is proposed that the Royalite will not actually produce from its gas cap

its full allowable to the extent that there is excess crude gas available which Royalite can acquire to supply the market as part of its gas cap share of the market?

A Yes.

Q Now in other words, under that set-up, Royalite will not actually during the year produce from its gas cap its full allowable for that year?

A That is right. It is my understanding that they are going out and buying from others at a fixed price sufficient gas to meet their share of the market.

Q And the reason behind that plan is the avoidance of the installation of greater compressor capacity to store excess crude gas?

A That is my understanding.

Q Now, are you aware that Royalite is under this plan only to produce its gas cap wells as and when requested by Madison?

A It is being held as a stand-by to meet peak loads, I understand.

Q Now, is it part of your proposal that the same procedure be followed in the operation of the B.A., and the gas cap wells? And the G.O.P. gas cap wells?

A It is exactly the same except for one point. We do not propose to go out and buy gas to make up allowables which we do not produce from the gas cap. Otherwise it was exactly the same. The only difference, as I understand it, being that we propose to produce during the year our full allowables. Royalite will not produce their full allowables and will go out in the market and buy extra gas at some fixed price to supply that. We do not propose to do that.

Q Yes, but as I understand it, your proposal does not involve that you are producing from the gas cap as and when Madison asks you?

A Well, actually in operation, it will actually work that way. Our gas cap will be used to supply peak loads due to the fact that we won't have in the first case the capacity in the summer time to handle all the gas. We can only put in 13 million feet a day into the reservoir with the equipment installed. The original proposal was that the plans would have to be made in advance in order to meet the mechanics of the situation. Now it is our proposal that the gas cap will be produced when the market requires it, that is No. 1, and any other time when the production will not result in the flaring of the gas. To that extent our gas cap is available to meet peak loads. Now, there is four million feet a day approximately from the gas cap in the B.A. area, which will be used for the specific purpose, for that specific purpose, and the original equipment was designed and set up to be used as such.

Q Mr. McCutchin, is your company, or is it not, prepared and willing to produce the gas cap as and when Madison calls on you for the market requirements?

A Up to the limit of our capacity. The capacity of our equipment, up to that limit. We will be very glad to do it up to that capacity. It would be to our interest to do it. We do not even need to go any further than that, because we are interested in moving as much gas to the market as can be sold from the South end of the field.

Q Then do I understand you correctly that you are prepared to say to this Board that you will take production from the

B.A. gas cap if and at such times and to the extent that Madison may call upon you?

A That is right, providing, I would like to add here, providing we can get the full allowable at the end of a year's period, that is perfectly all right. That is just what we intend to do.

Q Well, are you prepared to leave the production in the gas cap, and I am assuming now that it will be all produced during the yearly period?

A That is right.

Q That you are prepared to do so subject to that qualification?

A If we get it all for the year.

Q That you will only produce the gas cap if, as, and to the extent that Madison may request you to do so?

A And to the limit of our equipment. We cannot do more than about 21 million feet a day, and we must not flare any gas, that is just the basis. We are in the conservation here and we are going to do that. We are going to use it for that purpose. We have only about 20 million feet a day so that we cannot do any more than our capacity. We will be glad to do it. It is in our interest to do so, and that is what we contemplated from scratch, from the beginning. It is to everyone's interest to do that. Now the producers own the gas in the B.A. area. I can only speak for our transportation system. I do not see why they would have any complaints because in that way they would be selling more gas than they otherwise would be selling.

Q But by reason of the limitation of your equipment, operating the gas cap in that manner, must of necessity involve that the gas cap cannot be regarded as a full stand-by in the sense that the Royalite gas cap is?

A. Now, let us take a lookat that. If we have approximately 20% of the market at any time, we can meet our share of the peak load at any time the market is less than 100 million a day,because we can put 21 million up that line. Now I do not know about peak load conditions, but I know there were not very many times in the winter, or are not, that this peak load goes over 100 million a day. We can do that.

Q Now then, when you were answering my previous questions that you were preparing to operate it as a stand-by, were you interpreting it as a stand-by, your share of the market of 20% approximately?

A No, we do not think of it in that way. If at any time you want gas and if we are behind or over, you will get it. When the peak load comes along and you want more of our share of the market or less, that will be all right because we only balance that at the end of the month. I think we are some 50 million over our share of the market at this time, so that we do not have to worry too much about that. We will give you the whole thing if you want the gas. We would not be repressuring anything and we will giveyou all the gas. We will immediately go out through the gas cap and give you all the gas that you want.

Q But you are asking, and your plan presupposes that your gas cap allowable must be or should be actually produced during the year?

A For the yearly period, yes.

Q Now, Mr. McCutchin, is it not a fact that by reason of the conserved gas plan in the Royalite area, the Royalite revenue from the wet gas content of the gas so conserved will be deferred for some years?

A As I understand it - well there is no doubt about it that part of the market is supplied with gas from the B.A. area, and the G.O.P. area, and that gas is not processed through the Royalite plant, therefore the Royalite plant income is deferred until such time that they process their gas.

Q You are talking about the South end and I am talking now about the conserved gas plan in the North end, that is, instead of Royalite actually during the twelve months producing from the gas cap the gas cap allowable, that it, instead of producing that in full, goes out and buys residue crude gas. Now I say by reason of that program, is it not a fact that Royalite's revenue from the wet content of the gas so conserved will be deferred for some years.

A Yes, I understand it that way.

Q Yes. And is it not also true that by reason of that the throughput of the Royalite gasoline plant will be correspondingly less for the same period?

A That is right.

THE CHAIRMAN: Is that right, Mr. Chambers?

MR. CHAMBERS: If the amount of conserved gas were produced from the gas cap.

THE CHAIRMAN: Compared with what year?

MR. CHAMBERS: I am talking about from now on, if all the gas was repressured.

THE CHAIRMAN: And if the system could handle it?

MR. CHAMBERS: And all the allowables were produced.

THE CHAIRMAN: And if the system could handle it?

MR. CHAMBERS: Yes.

THE CHAIRMAN:
But is that going to make any market difference in the absorption plant income, I mean, is it going to handle any volume of gas irrespective of the production of the gas cap, are you

going to have a lot of crude gas you did not have before?

Q MR. CHAMBERS: Well, in answer to the Chairman, let me put this to you, that this year as compared with last, or the year before this Act was put in, take this year in comparison with last year, the Royalite plant is handling approximately 20% less due to the gas from the South end coming up?

A Yes, that is right.

Q Now, let me put this to you, assuming that each well produced its allowable, and I am talking about gas cap crude wells, now, all that gas goes through the absorption plant and instead of having any conserved gas program, there were enough equipment to put in, to repressure all excess gas, that would be one program. Now instead of doing that under this program, the program which is now proposed, and the crude wells will produce all their allowables, the gas cap will not produce all its allowables, but instead of that will take conserved gas, now I suggest to you under those two schemes, that under the second of those two schemes the Royalite absorption plant would have less gasoline throughput?

A Yes, that is right, they would process less.

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Q In other words, by reason of the adoption of the conservation plan, conserved gas plan, thereby avoiding additional repressuring equipment, the Royalite Gasoline Plant will have less throughput.

A It will happen they will have less current throughput but the amount that will finally be processed through the Plant will be the same.

Q Ultimately?

A Ultimately, yes. It is a matter of deferment.

Q Does your proposal contemplate a similar plan for conserved gas in the gas cap in the G.O.P. and B.A. areas?

A In other words you are asking me if B.A. contemplates closing in the gas cap and going out and buying crude oil residue gas to replace it?

Q That is right.

A No sir. The answer to that is no, we do not.

Q Under your plan the operation with respect to the B. A. area, the B.A. Plant will currently process and market the gasoline content of all the allowable for that year, during the year.

A That is right, during the year.

Q Whereas under the Royalite plan, by reason of the conserved gas program the Royalite Plant will only process the crude gas allowable on the portion of the Royalite Gas Cap Allowable.

A The amount produced.

Q Now turning to Exhibit 94. I think you told us orally yesterday and you also state in Exhibit 94 that the merit of your plan, that is Schedule A as I understand it to your Exhibit 94, is that it is uniform in its application.

A It is as uniform as we can make it, to meet conditions.

Q I suggest to you, Mr. McCutchin, that while your rules may be uniform that the circumstances or conditions to which you are applying them are by no means uniform. What have you to say to that?

A That is quite right. We admit that the Royalite should go out and buy that conserved gas from time to time and we have no objections to it whatsoever. So we have tried to provide in the rules we have set up here for that situation. But we submit a set of rules can easily be and should be uniform, only varying the rules as absolutely necessary.

Q Now in paragraph 4 on page 1 of Exhibit 94, you suggest as I take it that the Madison proposal arbitrarily calssifies the Gas Cap wells in the B.A. and the G.O.P. areas as oil wells. Now is it not a fact that the Madison plan which is Exhibit 91.

A Is that the last one you put in?

Q Yes.

A Yes, the last one.

Q The set-up allowing the gas cap wells in the B.A. area to produce their full yearly allowable at any time at the convenience of the B.A. Plant would be that the gas wells would have their full share of the market.

A I might explain this submittal was made before your last change was made in your set-up. This was written on the 18th and we did not receive that Exhibit 91 until subsequently to that time.

Q So that the second sentence in paragraph 4 would not be applicable now.

A It is applicable to a certain extent, because in Exhibit 91 as I understand it you do provide for the B.A. Gas Cap but

you do not do anything about the G.O.P. gas cap. Am I right in that?

Q Yes, that is right.

A So to that extent, that set-up is not uniform. You did not go far enough. You only satisfied us and to that extent. . . .

Q Your wells have not yet in fact been put on a yearly allowable, have they?

A No. I understand they will be beginning July 1st.

Q Can you tell me what the situation is about the G.O.P. gas cap?

A At the present time?

Q Yes.

A No, I can't.

Q Do you know whether they are asking for a yearly allowable?

A No, I don't.

Q And the treatment of the G.O.P. gas cap would, in any case now, aside from the Madison's wishes and yours, depend upon what treatment is accorded to them by the Conservation Board with respect to allowables.

A I submit in this whole sharing position proposition, the basic principles must be as uniform as possible and just because the G.O.P. do not work up and ask for these things is no reason why the set-up should leave them out of the picture when they can be well taken care of by uniform rules, which will allow any person to operate. What is liable to happen in the future you do not know and I do not know, which might result in inequality.

Q As I understand your Exhibit 94 pre-supposes an annual allowable for the G.O.P. Gas Cap area, is that right?

A It pre-supposes that they be permitted - that that Gas Cap be permitted to be handled in the same manner as the Royalite

Gas Cap and the British American Gas Cap. How we are going to do that, I do not know. They might not take advantage of it but I assume they should have the right to the same privileges and the same responsibilities as any other body with a gas well or wells.

Q They have to get that right which must be accorded them through the Conservation Board?

A Yes, the Board sets the allowable and the periods for which they are to last.

Q One of the reasons, you know, the change was made between the former Schedule A prepared by Madison and this one was because in that intervening period it became apparent that the probability was that your gas cap would be changed from a monthly allowable proposition to an annual proposition.

A From a six months' to an annual. We had had it on a six-months' period ever since the first of the year.

Q And prior to that on a monthly basis were you not?

A Yes, that was before we had any such system as this.

Q That was the situation when the first Madison proposal was prepared?

A Yes. It has only been since the first of the year it has been different.

Q Now, Mr. McCutchin, did not Madison's original proposal assume and provide for the B.A. Gas Cap wells getting their full share of the market?

A You are speaking now of M-16?

Q Yes.

A No sir. I say that the way that was set up that it is only by some great and almost an impossibility that we would have gotten a full share of the market. The reason I say

that is because the Royalite Gas Cap in the M-16 set-up, as I understand it, was a book-keeping entry for the sharing position. This came around with a theoretical deduction. There is many a slip possible. There are some things that are certain to happen between an actual producing operation and one that is handled in a theoretical manner over a period of years and you do not have a chance to operate above your allowable. You are always operating below the full allowable. You cannot operate above because if you do you are cut back the next month.

Q Is it not a fact that the British American Gas Cap wells were on monthly allowable basis?

A During the time M-16 was being considered, that was true but of course perhaps we have not really thoroughly understood each other on some very important facts. We have always thought it should be done possibly and under that set-up we certainly would be below the full quota because in the summer time we cannot handle the full gas allowable. It was with this new scheme in mind that we put in the equipment that we did. We did produce each month part allowable and as a matter of fact the operations of the crude oil wells would not permit us taking anything from the gas cap during the months of either July or August.

Q I am trying simply, Mr. McCutchin, to say there was more in the previous scheme than there is now and what I am suggesting to you is this that the previous Madison set-up was following or dealing with the situation as it actually was and that due to its monthly allowable, the B.A. GAS Cap in this plan would have had that effect that you say?

A That is right.

Q The situation has considerably changed, I am not quarrelling

A That is right.

Q That by reason of the change in the Gas Cap allowables in the South End to an annual basis, it makes it more elastic?

A Yes. And it is more reasonable and we, we felt that it was so reasonable that we went to the extent of designing our Compressor Plant with that idea in mind.

Q Is it not a fact the market is now being shared on the basis of Madison's proposal, Exhibit 91?

A I am just a little bit behind on how they are computing it. They do it every day, I suppose so. Similar to that anyway.

Q Well now, under the situation as it exists now and we will assume that this plan, Exhibit 91, revised Schedule A of Madison's that was put in recently, would you please explain to the Board and to myself because I am not very clear on it how the B.A. Gas Cap wells are now receiving their full share of the market.

A Under 91?

Q Yes, under the revised Schedule.

A When you look at Schedule A - the best way to say that is it is all right so far as the B.A. Gas Cap is concerned. You notice when I ticked off the paragraphs yesterday they are identical with ours. You take care of the B.A. Gas Cap and you take care of that in good shape in Schedule A. But I say you do not go far enough. You do not take care of the whole gas cap in the field and you leave the G.O.P. out. It takes care of the B.A. all right.

Q So far as you know the G.O.P. area is still operating on a monthly allowable?

A I do not know what their situation is.

Q Have you any reason to know?

A No, I am not familiar with it. I do not know, frankly, I do not know.

Q Now turning to page 1 of Exhibit 94 and the last sentence of paragraph 4. "We sugmit that rules concerning all gas wells should be uniform so far as sharing position is concerned and that unless this is done inequalities may prevail so far as gas wells' sharing position is concerned." Now you will recall, Mr. McCutchin, that during the period of this long adjournment that this matter was discussed between us several times.

A Yes, but we never reached an agreement.

Q Now was it not contemplated or understood that starting with the same figures that were used in Table 1 of Exhibit 86, that is Madison's M-5, that you were going to produce a similar statement to illustrate the inequalities of that Madison plan, do you remember that?

A We did prepare such a statement, yes.

Q Have you got that with you?

A No we have not got it with us. They were only prepared in pencil form and in thos negotiations we finally got to the old merry-go-round and nothing happened to it and I did not see the use of making out any long, long statements. As far as working out the details are concerned you can work out or calculate anything you want to calculate if you put down on paper the assumptions and you can make your Tables show anything you like. That is you have to estimate things, such as operating conditions and once you have done that the Table shows anything you want it to show.

Q At that time was it not regarded that it might be helpful that you would convert to paper the plan on the assumed

figures the same as Madison had done, which would serve to illustrate concretely what you had in mind and would also serve to indicate to Madison exactly your plan so that they could examine this scheme and see whether it would be workable and not easily broken down or not.

A Mr. Chambers, the Madison plan proposes handling the Gas Cap in this simple and easy proposition and handle the gas gathered on the one basis and they have run through a series of Tables here which are voluminuous. If they could handle the Gas Cap Allowable of the Royalite Gas Cap, it just deals with the gas well allowable. The allowable figure might be run into these enormous long tables in exactly the same manner and get the same approximate answer. You would get the same answer exactly. There is nothing complicated about it. You could make up a whole bunch of Tables and take up a whole lot of time but we are short of staff. We have not a large staff to do this thing and we have to carry on with our current work so we could not put that in Table form. We would rather consider the principles because once you agree on that then it is an accounting proposition. The Royalite Gas Cap can be handled at a theoretical figure, and use any figure you want and likewise the British American and G.O.P. Gas Caps can be done likewise and there is no need to spend five days or more making out great long Tables to demonstrate that to anybody.

Q You had a statement prepared, as I understand it, in longhand but you do not think it is worth while presenting it to us here, is that right?

A That is right, yes sir.

Q Mr. McCutchin, would you please tell me what you regard as

a gas well, as you have used that term in Exhibit 94?

A I think the term "gas well" is a well designated by the Conservation Board and I believe they have recently defined a gas well as being a well producing at a higher gas/oil ratio than 30,000 cubic feet.

Q MR. HARVIE: To a barrel of crude?

A 30,000 cubic feet per barrel of crude or per barrel of liquid, whatever it is.

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Q Mr. McCutchin, in the second last paragraph on page I of Exhibit 94 you say this:

"It was essential and necessary that Madison install standby equipment capable of meeting all reasonable variations in load."

Now will you tell me what equipment of Madison's you are referring to in that?

A I am referring to the equipment in the No.I Compressor Station. All the gas of course of the system has to go through that station, particularly at peak load times I believe and there should be no shortage of equipment. They should have adequate equipment for that operation.

Q Yes, but that equipment does not enter into the question of flaring that gas, does it?

A Oh yes, it most certainly does.

Q Well in the Madison system is it not the returned gas equipment which would cause the Madison flare?

A Well they have the plant, a Depressuring plant as well as a Repressuring plant so it is both. It is the equipment there which would be used for repressuring or for moving gas to Bow Island.

Q Now Mr. McCutchin, it is true is it not, that the B.A. handle and operate in the South end a compressor station with a suction pressure of 10 pounds?

A That is right.

Q That has been only recently installed?

A Last year or this year.

Q Now is it not a fact that there are other wells in the North end of Turner Valley, all of whose gas is being flared and wholly excluded from the market, although their operating

pressure is over 100 pounds?

A Are you speaking of the Home wells.

Q I am speaking of any wells in the North area?

A I understand there are some. I do not know how many there are but I understand there are some.

Q Then what I am getting at is this, I suggest to you that even under your plan that inequalities will exist as between producing areas because you have a low pressure system down there and a different situation in the north.

A Oh there is going to be, there is no provision in the plan here to take care of every foot of gas in Turner Valley.

Q In other words you cannot get absolute perfection unless you spend too much money?

A That is right. It comes down to a question of economics and so forth. It is just one of those things, it does not mean because some man has a well far removed from the gathering system you should set up some equipment to take care of that.

Q Now in the last sentence of the sixth paragraph on page I, Exhibit 94, you say:

> "All producers of gas should be permitted to have flared gas deducted from their repressured or less valuable gas and such deductions should not affect the marketable gas so long as gas in sufficient quantity is available to meet their share of the market."

Now I am just trying to get information as to the workings of your plan. Now Mr. McCutchin, will you please explain to us the actual method which you suggest in regard to that statement which I have just read; First as to the B.A. area or the B.A. gas and secondly as to the G.O.P. gas, so as to indicate how it would differ from the Madison

accounting practice as set-up now?

A First, there is no difference suggested here as to flared gas between any absorption plant; in other words if I describe it for one plant I will have described it for all, that is the B.A., the G.O.P. and the Royalite. The suggestion is that that be uniform. The second is that this flared gas which is currently being deducted from gas so termed available to market would be deducted from another column which is the conserved gas column or the repressured gas column. Now that is the suggestion. They are all the same, all uniform, and instead of deducting it from the so called or so designated gas available for market it is deducted from the repressured or conserved gas column.

Q Just going back to another matter for a moment, when I was asking you about your statement in Exhibit 94, about Madison having the equipment, you recall in one of the exhibits put in yesterday or the day before, there was some discussion about an item, of, a considerable amount of gas flared at the Madison Plant in May, do you recall that?

A I do not just remember now what it was.

Q You remember a reference to 7,590,000?

A Oh yes, I do recall that.

Q Now if the Madison had ample equipment, why was that gas flared, can you explain that to me?

A Oh they did not have ample equipment to take care of every possible contingency. You understand it is not possible to put in equipment to take care of every contingency for everybody. You can only approach a problem of this kind. There will always be some flaring necessary by hours or minutes. You do not approach the whole thing but you will approach it by putting in more or less. I think it is the economic, near the economic

limit right now and I am not suggesting anybody put in any more.

Q What about that situation in May; is it not a fact that due to not having enough equipment installed Madison flared some seven million odd and the B.A. for the same month did not have enough equipment installed either and flared about eleven million?

A I do not remember the figures but that could easily be.

Q Now Mr. McCutchin.....

A But I would like also, if you want to mention figures, you must look at the size, look at the size of the operations. They are five times as big an operation at your place as it is down at ours so our percentage ought not to be more. I am not going to say it is going to be greater, I am going to say whatever should be done to that flared gas should be done to all the same and I do not know who is going to win or lose, now I do not know, I do not know who is going to win or lose but it is the most efficient plan.

Q What you say is that there is not enough standby equipment in either system to take care of everything?

A That is right.

Q But that in proportion to the two systems there is less installed in yours than there is in the Madison?

A That is right. We had one place in the set-up where it was necessary and reasonable to put in standby equipment, which was done, but at some other place it did not absolutely need it because of the existence of the Royalite No.I Plant so we did not put it in.

Q Mr. McCutchin, will you just assume with me that the B.A. Transmission line from the B.A. Plant to the Madison scrubber went out of commission with the result that all gas from the B.A. plant had to be flared,- now what would be the sharing

position of the B.A. area for that period under your plan?

A It would not, - wait a minute, if we have a line break and we are off two or three days, which probably would be as much as we would be off under any circumstances, now if we were repressuring gas at that time all the flared gas would be deducted from the repressured gas. Now we are not, I am not worried about setting up anything to take care of these minor emergencies. Those can easily be adjusted. They can easily be adjusted one way or another. If someone cared to do this, you can either mark us off the sharing position for those days. That would be one solution but I did try to cover them in the general rules, that that could be done by agreement.

Q Yes, but under the scheme as set-up, assuming that situation in fact arose, I am not saying that it might or how probable it is, but assuming that it did arise and we were applying to that situation the scheme as set-forth in schedule A of your Exhibit 94, what would be the sharing position of the B.A. area for that period?

A Well now the first thing that would be done, we would immediately go to repressuring, and if we had any gas wells on we would shut those in because we would probably be over-loaded for our system unless we did, so we would shut-in all our gas wells;- immediately then we would go to repressuring 100%, so there might not be any gas flared at all or it might not figure in the calculations if we did that. You see we would start repressuring immediately until such time as we had the lines fixed and then we would start in with the market. You would have to give some other and further assumptions on the volumes going through....

Q I am assuming there is a large quantity of gas flared and I am

just putting it on that assumption.

A What do you mean by "a large quantity". You see we put back 13 million feet, our entire load is about 19 million feet and we put back about 13 million feet into the ground, now you are not going to have an enormous quantity which has to be flared.

Q I am asking you to assume that there would be?

A Five million feet or some such figure.

Q Yes, take five million feet and that no gas is used up at all?

A And we are putting 13 million feet into the ground.

Q Yes?

A Then in that case our sharing position would not be affected by the break in the line, as long as we put the gas back in the ground, it would not affect our sharing position. Of course we would not be paid for any gas until we actually delivered the gas but our share of the market, we catch it up in the next two or three days and it would be all right.

Q Now then on pages four and five of schedule A, part of Exhibit 94, and I refer particularly to clause 3-V and the clause 5 on page 5; as I understand it, the implication of those provisions is that gas stored in Bow Island is to be deducted from the total of residue gas available before ariving at Madison's marketable gas and when I talk about "Madison's marketable gas", I am talking about it as the term is defined, is that right?

A Yes. The suggestion is that this gas at the Bow Island is in fact a sale just the same as any other sale of gas, a separate proposition. It has been taken you will notice from the market under paragraph "W" on page 3, it has been deducted from that you see. It is not a part of the general market in this submission. Now it has to go someplace. If you take it out there you have to put it some place else. You cannot just

leave it suspended in the set-up, so we say that that is a sale of gas. It is just the same kind of gas, it is scrubbed and it is sold to the Royalite camp, the Valley Pipe Line Company, the Valley Pipe Line and it has been the general set-up in the understanding that everybody that sells gas in a separate market has that deducted off their gas available for market, up until now, but here is one I find suspended out on a stick. It is taken out of one place and it is not put any place else.

Q Mr. McCutchin, I am not at the moment concerned as to why it is. I am asking you as to the effect of these provisions so just let me carry on; that by reason by the provisions in clause 3 "V" and clause 5 of schedule A attached to your Exhibit 94, does that not mean in effect that the gas stored in Bow Island be deducted from the total residue gas available before arriving at the defined term "Madison's marketable gas"?

A It does.

Q And if that were done the B.A. and the G.O.P. areas would receive a larger proportion of the market?

A And also if it were not done.

Q Yes, and now do you know....

MR. HARVIE: Has he answered that?

THE WITNESS: No, I am thinking about that. It is a little bit complicated now. If you reduce the amount which the Madison area has considered available for the market therefore that would be shared by all the other gas in proportion to the amount which they have, therefore approximately, what will we say, a certain percentage, whatever the percentage was, they would have a larger percent go to the market. That would work out that way.

Q And as a matter of fact that is the reason why that was put in. Let us be friendly about these things, is that not so?

A Why was this put in.

Q Yes?

A Well it is put in basically for this reason, we put in quite a large installation here on the assumption that we were going to have something around, about 20% of the market. Now if anything happened through rules being set-up or regulations that we did not get approximately that we are having to, we are going to have to go to the Board and ask for all kinds of adjustments and we think that is about what it is going to take to make that thing work out over-all. Now I will say there are ups and downs in the whole thing. There is many a hitch between here and the end and we think we should be in the middle, and protect ourselves as much as we can, and look after our own interests.

Q Sure?

A Somebody has to and we are the only persons in a position to do it.

Q And you expect the producers in the North end to look after their interests?

A Exactly and we have to look after the handling of our system.

Q If your system can be improved at the expense, or at a detrimental effect to the North end, that is their concern?

A No, at a reasonable set-up we say, at a normal set-up, that is all we ask, that it be uniform.

Q Now do you know or have you any idea why gas is being repressured in Bow Island rather than in Turner Valley?

A I would not say. I may have some ideas about it but the thing is, I have not been in on any of the negotiations and I only know by he say from the whole situation but it is my understanding, I will not say whether it is right or wrong, that gas is being bought by one company and sold to another at a certain

agreed price. I saw a Board order about that.

Q Well let me put it this way, if it were being repressured in Turner Valley, there would need to be more repressuring equipment installed, would there not, in Turner Valley?

A I presume that, Madison of course has equipment there now and it is wholly loaded, yes, I presume so.

Q And you know from that or from your knowledge of the field that the repressuring of Bow Island takes place during the summer months when the load in Calgary and so on, and Lethbridge and so on, is at its low?

A The repressuring is the same all over. We have variations in all the plants but it is practically all in the summer time, both in the field and in Bow Island.

MR. CHAMBERS: Thank you, Mr. McCutchin.

CROSS-EXAMINATION BY MR. STEER:

MR. STEER: You had finished, Mr. Chambers?

MR. CHAMBERS: Yes.

Q MR. STEER: You tell us, Mr. McCutchin, when that absorption plant of the British American was installed?

A About 1936 I believe, Mr. Steer.

Q And it operated a flare of its residue gas until when?

A Until, in large quantities until we put this utility system in in December and before that time we had sold gas for drilling purposes locally.

Q December of what year?

A December 1944.

Q And apart then from any local market that you could find for the gas which was, I think I may fairly say insignificant, all the residue gas was flared?

A That is right.

Q How long have you been connected with that operation?

A About a year and a half.

Q And you would be there then for one year under the old system of flaring gas and half a year under the new system, is that right?

A Yes sir.

Q That is right?

A That is right.

Q Now I would like you to tell us whether that operation in the year under the old system was a profitable one?

A Whether the operation under the old system was a profitable one?

Q Yes?

A You are asking me now for the profit and loss statement for the absorption plant for that year?

Q That is right?

A I would like to give that some thought. That was the same thing that was asked your company, and I would like to give that some thought before I answered it.

Q I beg your pardon?

A Could I give that some thought and see whether I can give you any ideas with regard to that?

MR. FARVIE: I am going to take the same objection to the information being given as the Gas Company and Royalite has in connection with their operations.

THE CHAIRMAN: I do not think Mr.Steer intends to go into the details. He is asking whether it was profitable. It

was profitable if it made a dollar over the operating costs and it was very profitable if it made a million dollars.

MR. HARVIE: Then what does that include, the operating costs, depreciation, return on investment and things of that kind, does it include that? I might state, Mr. Chairman, as I think has already been intimated to this Commission, that that was an operation of the British American Oil Company Limited, and I just take exception to that information being given.

Q MR. STEER: Are you employed by the British American Oil Company Limited, Mr. McCutchin?

A Yes sir.

Q What is your capacity?

A Manager of the Production Department.

Q Manager of the Production Department of the British American Oil Company Limited?

A Yes.

Q And that company operates the absorption plant that we are speaking of?

A It does.

Q Frankly, what I have in mind is the statement - perhaps I should ask a few preliminary questions first. I would ask you whether or not in the year before that transmission line connecting your residue gas line with the Madison scrubber was installed, I would ask you whether, in the year before that installation was made, the operation of the absorption plant was profitable? Now, objection has been made to you giving that answer, and it may be that the Board will rule as to whether I am entitled to get an answer. I submit, Sir, that I am.

THE CHAIRMAN: I think you are, Mr. Steer, but I do

not think you would have the right to go into ths details as to the quantity.

MR. STEER: I am not asking for that at all.

WITNESS: Might I ask just for a bit of information, might I ask the question, Mr.Steer, when you speak of profit, do you mean taking into account such things as depreciation, is that what you mean?

Q MR. STEER: I suppose depreciation is proper expense, yes.

A And of course you know that depreciation is somewhat flexible. Before the answer would mean anything, before the answer yes or no would mean anything, I would have to go into all those details in order to have it mean anything.

THE CHAIRMAN: Mr. McCutchin, your Company keeps books and the simple question is, according to your Company's books was that a profitable operation? I do not care what the basis of the depreciation is, it must be in the books if you have any.

MR. HARVIE: The point there, Mr. Chairman, is you are asking for the figures in the British American Oil Company's books, as a result of the 1944 operations in its absorption plant.

THE CHAIRMAN: Yes.

MR. HARVIE: Regardless of whether those books are kept in connection with normal depreciation, no depreciation, or excessive depreciation, and regardless of whether there is any charge for return on investment.

THE CHAIRMAN: I do not care how the books are kept. They show a profit according to what it is, and the answer is yes or no, and I want him to answer, Mr. Harvie.

WITNESS: I want to tell you that I have never

seen the company's general books. They are in Toronto. I do not know a thing about it. Our outfit is just a department of it, but we will have a witness here, the Chief Accountant, who, I think, will be in a position to answer the question. If I gave you an answer it might be wrong, because I frankly do not know.

THE CHAIRMAN: That is what you could have said in the beginning and saved a lot of time.

MR. STEER: Exactly.

A I thought he was referring to the operation, something I know about, just how much we spent for operating costs. I really do not know what the amount of profit is, and I did not know what he meant by profit. I was trying to get that, what he meant by profit.

Q Perhaps that might satisfy us. We will call it for the year 1944, what your operating costs were, what your revenues were and what the surplus to revenues over expenditures.

A I am not prepared to give you the details with regard to that. I am not prepared to give you that information, I cannot tell you that.

Q I presume that will be the case from 1936 on, would it?

A From the time that the plant was in until the beginning of 1944, whether we were losing money on our operations, but I think not. However, I would have to check on that. I think it is going pretty far back.

Q Now there could not be any suggestion, Mr. McCutchin, that that plant was installed in 1936 for the purpose of marketing gas, could there?

A The absorption plant being put in for marketing residue gas?

Q Yes?

A Oh no, we did not have any market for residue gas. It would

not be put in for that surely.

Q I would like you to explain what you mean by this statement, it is at page 2441.

MR. FARVIE: What number?

Q MR. STEER: Page 2441, Volume 31. You are speaking of the richness of the gas.

"Now the crude gas in the South end of the field and pretty well throughout the Valley will generally test on charcoal gests less than .2 as compared with their figure of .75. So they are handling a very rich quality having a very large quantity of consensible vapours in it. I would say too that the contract was not suitable for handling this extremely lean gas. Actually, if you are going to handle it one way, you can say for example the absorption plant in Turner Valley is purely a cleaning up proposition for the gas to make it marketable. It must have these small quantities of products out of it, but in themselves very very small. In fact I know of no plant in my experience that has operated consistently on such a low gas as that which we process in Turner Valley."

Now you did not mean to suggest by that that your absorption plant was a plant for cleaning up gas so as to sell the gas to the market, did you?

A When it was originally put in? You are referring to? You are referring to the present time or when it was originally put in? I was talking here about gas contracts, subject to gas contracts, and there was no reason, or there were not any reasons for putting in plants referred to. It was the main subject.

Q Did you mean to suggest by that answer that the operation of your absorption plant in Turner Valley today is for the purpose of cleaning up gas so as to make it marketable?

A No, I did not mean to suggest that that was the only purpose. It does that as it does other things. It does that too.

Q And it has done that only since December 1944?

A For marketable gas. We had no market of any consequence before that, that is right.

Q And if this scheme which is under discussion now had not been inaugurated, would you have gone on operating that absorption plant the same way as you had done for the preceding eight years?

A Until we had reached the economic limit.

Q And you have made money on it as you have done for the previous 8 years?

A That is not the statement I made, whether the Company made or did not make money on that absorption plant. That will come up later, and you are asking the wrong person on that part of it. I do not know whether we did.

Q And your company operates a refinery?

A In Calgary, yes.

Q Are you an official of that refinery?

A No sir, I am not.

Q You have nothing to do with it?

A Nothing to do with it whatsoever.

Q Do you know whether your company regards the absorption plant and the refinery as independent businesses?

A They are in separate departments. As far as I know they are.

Q Quite so. They are?

A Yes.

Q But the product of your absorption plant is delivered to your refinery?

A Currently, I think it goes to the alkylate plant where it is stripped and then gets to the refinery.

Q It goes to the alkylate plant for the purpose of getting the iso-butanes out of it?

A Yes.

Q MR. HARVIE: You might for the purposes of the record say where the alkylate plant is?

A It is located at the Imperial Refinery site.

Q MR. STEER: And then the absorption plant product, apart from the iso-butanes, goes to the refinery?

A That is right.

Q To your refinery?

A That is right.

Q And it is used there for the purpose of doing what?

A It is used in making gasoline. It is gasoline after it is further refined, blended, and so forth. I do not know just how it works.

Q It is used for the purpose of blending with other gasoline so as to increase the octane of that gasoline.

A I think it has more volatility from there on than anything else, although I am not able to speak. I have not heard of it being a very high octane.

Q DR. BOOMER: I think it had better go into the record that you take out iso-pentanes as well as iso-butanes, Mr. McCutchin.

A Yes, in those cases of the iso-pentanes they take out a higher fraction, and it might not have a very particularly high octane product at all. I think volatility is one of the main things.

Q MR. STEER: Am I right in this, that before the alkylate plant was established that iso-butanes and iso-pentanes

were not taken out at all, but what you did was to ignore tham and deliver the natural gasoline to your refinery?

A Of course the natural gasoline before the alkylate plant went in, had very little iso-pentane.....

Q You speak a little rapidly, Mr. McCutchin, I do not follow you.

A Before the alkylate plant went in, the plants in the Valley were producing about 20 to 26 pound vapour products which had a very little iso-pentane in it.

Q Or iso-butane?

A It had it, but not the iso-pentanes in very large quantities.

Q And that was the product that your refinery required, is that right?

A They used it.

Q And that is the product which your refinery still gets?

A Less the stuff that is stripped.

Q The iso-butane?

A Originally do you mean?

Q Yes?

A Originally there was very little iso-pentane in it, it did get the iso- butane.

THE CHAIRMAN: Well, Mr. McCutchin, I think you should explain that you made a chance in the operation of your absorption plant in order to capture the iso-butane?

A That is exactly right.

Q MR. STEER: Now you do extract iso-butane from the gas in your plant in Turner Valley do you?

A Not as a separate item. It is in one 45 pound vapour pressure product, and it is carried from there under pressure storage and delivered as a combined product and then it is stripped

in the alkylate plant as one unit operation there.

Q I see?

A We do not do it separately.

Q So that the only difference between the operation in your plant since the war, and prior to it, is the pressure change, am I right in that?

A Well we are now recovering 45 pounds vapour product.

Q And what did you do before you were interested in the iso-pentanes?

A We had a 20 to 26 pound product. There was a lot of minor changes in the plant itself.

Q And that is 20 or 25 as compared with 45 in the pressure change?

A Yes, that is right, the vapour pressure.

Q So that if you get a product at 40 or 45 pounds vapour pressure, you capture some of the hydro-carbons like iso-pentanes which are desirable un the manufacture of aviation gasoline, that is right?

A That is right.

Q And if you get a product of 20 or 25 pounds, you do not capture that?

A Not very much. There is a few but not very much.

Q And what the connection is between your refinery and this absorption plant, either now or at the original installation of your absorption plant, you are not prepared to say?

A Well I will say this, it might clear up a point or two, we pay the posted price for absorption products in the Turner Valley, and our Company has never posted a price for crude oil or absorption products. We have only followed other companies that posted it, if that is what you mean.

Q What I am wondering about, Mr. McCutchin, is whether that

absorption plant of yours would have ever been erected if it had not been that your refinery required this product?

A Well I honestly do not know. That absorption plant was erected originally, it seems like to me, on a very funny situation. They built a plant, to be frank about it, without having any gas of their own or not having any gas of anybody else's. It is just like any other business, some start, some succeed and some do not succeed. I cannot logically, looking at this record, know how they built it at all. It might have been a mistake. I never heard of it being done before.

Q They did not build it for the purpose of cleaning the gas and selling the gas to the market, that is obvious?

A I know of no gas market they had, so that I would have to say they did not have that primary purpose in mind, although it serves that function now.

Q Will there be somebody in the box from your Company later, who will tell us what the relationship was between that plant and the refinery when the absorption plant was first erected?

A We can get some man from the manufacturing department, I presume, if you would like to have that, and perhaps he can explain it to you.

(Go to Page 2493.)

Q Another thing you said, Mr. McCutchin, was that in your opinion this scheme had nearly reached its economic limit with respect to the installation of equipment. Do you recall making that statement?

A You mean the utility company you are talking about.

Q Yes, the company we are discussing now.

A I think so far as the installation of new equipment is concerned it looks to me as though it is about as far as you want to go.

Q Is this true that in the month of April there was half as much gas flared under this system as was delivered to the Calgary market?

A I do not know.

Q You have not got those figures?

A No, I do not know those figures. I have not seen them. I know there is considerable gas in the North end of the field that is being flared, that is large quantities come from the Home wells but they have not yet been connected up.

Q You are speaking of the Home wells?

A The Home wells. The Home wells I believe have never been connected up and there is considerable gas from the Home wells. However those figures are available and you can get them from the Conservation Board's records.

Q I was under the impression that there was a special contract made between the Home wells and that they are now connected up.

A Well I do not know about that.

Q Then you and I need not bother about that. You have not those figures in your mind?

A No sir, I do not have them.

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. FENERTY.

Q There are a couple of questions, most of them have been covered by Mr. Steer but, Mr. McCutchin, I was interested in the discussion between yourself and Mr. Chambers where it was suggested to you, and I think you agreed, that there were certain inequalities in your own gathering area there due to different pressures at which different wells were operating and you operated low pressure lines and high pressure lines and that you did not attempt to attain absolute perfection because it would cost too much money. I think you agreed with that.

A That is right.

Q And I gather from that that what you have attempted to do is to iron out the inequalities as between producers at a less cost than would be the case in absolute perfection.

A Yes, that is right.

Q Have you any suggestion as to who should bear the expense of ironing out those inequalities between producers, even at a lesser expense.

A There is no expense incurred in setting up a uniform set of rules. I do not know what you are talking about.

Q The suggestion here, we are talking about sharing position.

A There is no expense in setting this up. It is purely a matter of accounting.

Q I am referring to the statement which you agreed with that you were not attempting to attain absolute perfection because it would cost too much money. You remember that statement?

A Yes. But what I had in mind when I made that statement was I was talking about putting in extra lines and compressors

and so forth.

Q I have got something else in mind. You were not attempting to attain absolute perfection because it would cost too much money.

A That is right.

Q And in answer to me you did tell me that you were attempting to iron out some inequalities as between producers at less expense than would be the case in absolute perfection?

A That is right. You have to consider the economic balance.

Q On that basis I want you to tell me if you have any suggestion as to who should bear the expense of even partially ironing out those inequalities between the producers. Have you any suggestions?

A I would say this in general terms that the person who should bear the expense is the one who benefits.

Q You would not for a moment suggest that the consumer in Calgary should bear any of the expense of ironing out the inequalities as between the producers would you?

A If the consumer ih Calgary should benefit by such an arrangement or by any arrangement, then he should bear his reasonable share.

Q Even though those expenses have been incurred because of inequalities caused by the different pressures at which wells were operated. You have a lot of inequalities with wells operating at different back pressures. You have high pressure lines and low pressure lines.

A Yes.

Q And you say it would cost too much to iron those all out.

A To take the last cubic foot.

Q You ironed them out partially at some expense?

A You have to consider the economic balance and I submit that any person who benefits, that person should pay. That is the whole thing. It might be that not all people would be benefitted equally and one person might benefit more than another and therefore should be charged more.

Q Now it seems to me to be your idea of who is going to get these benefits is shown by your Exhibit 94 and you say: "Since one of the main objects of the Natural Gas Utilities Act is to allow each producer of gas in the Turner Valley field an equitable share of the market."

A I do say I think that that was one of the objectives.

Q When you talk about the producers getting an equitable share of the market, it is for the producers' benefit is it not?

A As to him getting his equitable share. He is entitled to his equitable share.

Q So that it is for the producers' benefit?

A Yes, he will benefit if he gets a price for his gas and he is able to sell enough of it.

Q As regards the oil operations of these producers you have a lot of inequalities which necessitated high and low pressure systems of gathering?

A Well of course this system was not put in to iron out any inequalities. It was put in for the purpose of gathering gas that was being wasted. The objective in putting it in was not to iron out any inequalities as between producers but the purpose of putting it in was to gather the gas which would otherwise be wasted and ultimately put that gas to some us.

Q But just to get back to what I was talking about. You agreed,

I think, with Mr. Chambers that you have these inequalities and it would cost too much money to reach a perfect system.

A The inequalities which I was talking about were the proposals for sharing the market and we submitted that our formula, the one which we suggested, if that was adopted it would do away with a lot of these inequalities I was talking about.

Q Mr. Chambers was referring to the variations in the operations in your gas field?

A That is right.

Q That is the one I am talking about and I say you have endeavoured as far as possible without costing too much money . . . . .

A To gather as much gas for the dollar spent as I can. That is the objective. Let me explain this. We will put this submission in, to gather as much gas as we possibly can for the dollar spent and then when we get on down we suggest that the rules of the game for sharing the market be on an equitable basis so that everybody will share in those benefits in some reasonable proportion and uniformly. The inequalities you are thinking of and the ones I am dealing with, I think, are two entirely different matters.

Q Let us get down to this. You say the first purpose is to gather as much gas as possible for the market.

A For the money spent.

Q For the money spent.

A That is right.

Q Secondly, that of dividing it equitably amongst the producers.

A That is right. Then once you have done that to divide the benefits equally amongst the producers then they have an equal chance to share the market.

Q But it costs a lot of money to divide it equitably amongst the producers.

A No, it costs nothing to put in that system. It is merely a matter of accounting procedure to give them their equal share of the market.

Q Let us go a little further back why, as far as the market is concerned, do you want to gather as much gas as possible today?

THE CHAIRMAN: He did not say that, Mr. Fenerty. He said to gather as much gas as possible for the dollar spent.

Q MR. FENERTY: Well why do you want to gather as much gas as possible for each dollar spent today? Why do you want to gather any more than the market will require?

A Mr. Fenerty, you know . . . . .

Q Just tell me why you want to do that.

A The market is such a fluctuating proposition that in order to meet all contingencies of the market, we must gather at some time more gas than the market can use. We have to gather more in order to have enough to supply the market when the market is at its peak. I do not think you understand, but during several months in the winter time we do not do anything but gather gas for the market. We do not repressure a foot of gas, and the Madison Company is the same. They are not repressuring all the time but in order to have the equipment to supply all that is necessary to meet the peak load, you have to have more than you need at all times.

Q Are you suggesting, Mr. McCutchin, that the primary purpose and the principal purpose of these gathering lines is to provide the peak load for the market this year or even next year?

A The primary purpose?

Q Yes.

A Well that is complicated.

Q Are you suggesting that it is?

A I am saying it does that, it does provide -

Q That provides for the peak loads?

A It provides for the peak loads. It has two purposes. It conserves the gas in the Turner Valley field over all and makes more gas available for sale currently and ultimately than otherwise would be.

Q It conserves gas which otherwise would be flared?

A Would be wasted.

Q Would be wasted because of an oil operation?

A Because of the operations in the field.

Q Yes, the oil operations?

A Yes.

Q So far as the market today is concerned either winter or summer, apart from this question of preventing waste of natural gas, is it correct that the British American oil operations are not necessary to provide the peak load.

A Would you mind repeating that question, I did not catch it all.

BY THE REPORTER (READING): "Q. So far as the market today is concerned,either winter or summer, apart from this question of preventing waste of natural gas, is it correct that the British American oil operations are not necessary to provide the peak load."

MR. FENERTY: I should not have said oil operations but oil, wet gas or dry gas are not necessary to provide the peak load.

A I do not know. You are asking me something here that our company has not dealt with in detail.

Q You have not got the details to show me that?

A No. You might get that more from someone who knows about the peak loads and knows about the capacities available.

Q I am going to come back to my first proposition to you and I want to refer you again to the beginning of your submission, Exhibit 94, "Since one of the main objects of the Natural Gas Utilities Act is to allow each producer of gas in the Turner Valley field an equitable share of the market -" You see that statement?

A Yes.

Q I want you to confine your evidence to that. Would you suggest that in order to attain that particular object to allow each producer an equitable share of the market, without other consideration that the expense of attaining that share of the market should be borne by anyone other than the persons trying to get the market.

A If it did just that and nothing else, if you could isolate them, of course then if they were the only parties to benefit therefore they should bear the whole expense. But you know when they are doing these things you provide benefits to other people. You supply things to them and of course that share of the expense should be equally distributed amongst those people.

Q Then as to that portion of the expense which would be effected or which could be properly allocated to getting an equitable share of the market for producers, you will agree with me that should be charged to them.

A There is very little to the transaction as a matter of

dollars and cents in order to . . . . .

Q I did not ask you how much was spent. I asked you whether you agreed with me that that operation, whatever it might be and whatever might be worked out by this Board, is properly chargeable to these producers.

A Every person who benefits should pay their proportion.

Q Will you tell me whether the answer to that is yes or no.

A The answer is yes.

Q We could have had that five minutes ago and we could have gone on to something else. By the way, can you tell me whether or not the Madison Absorption Plant - you may have no knowledge of this, but the Madison Absorption Plant . . . .

MR. CHAMBERS: There is no such thing as the Madison Absorption Plant.

Q MR. FENERTY: Pardon me, the Royalite Absorption Plant could handle all of the gas required for the Calgary market?

A I am really not familiar with the Plant and I do not know.

Q I want to ask you something about well pressures. Have you any knowledge of the approximate pressure at which gas is put into the mains for delivery to the Canadian Western Natural Gas Company, dry gas, residue gas?

A Our lowest operating pressure is around 425 pounds, that is at our end and that is 10 miles removed from . . . . . No, 325 pounds, excuse me. I believe it is between 300 and 325 pounds.

Q I thought it was 425 pounds, but you say 300.

A At our end.

Q Have you any knowledge of the top hole or rock pressures, the lowest pressures in crude producing wells in Turner

Valley.

A At the top of the hole?

Q Yes.

A Zero, some of them even will not flow.

Q But with the ones that are operating, they vary from what. There is some pressure is there not?

A You mean what is the lowest separator pressure?

Q Not separator but top of the hole pressure before entering into the separator.

A While the well is operating?

Q Yes.

A It is all the way from nothing, some of them will not flow and that would be the ones that would have atmospheric and there are others that run as high as 400 pounds. From 3 to 4 hundred pounds. I think some wells could operate direct to the system.

Q I am wondering if we are talking about two different things. What is the actual pressure, what Mr. Hill called rock pressure and somebody else called top-hole pressure.

MR. CHAMBERS: Not Mr. Hill.

MR. FENERTY: It was Mr. Davis, that is right.

A Oil wells, really the subject you are asking me is meaningless but I do not know . . . . .

Q You have not got the details of the pressure of those various wells?

A Not of every well in the field. I could tell you about the South end of the field pretty well because we have meters on the separators and we are familiar with that because we have the current information on that, but I do not know the North end of the field at all.

Q What I was going to suggest to you was that most of the wells in the field and certainly on the gas cap, but most crude wells have an initial pressure greatly in excess of the pressure of 400 pounds, we will say.

A I believe 500 pounds is about the top in our end of the field. Well I had better talk about things that I know about. In our end of the field, 500 pounds would be the top pressure. That is shut-in pressure. I do not mean that they will operate in any volume at that pressure. It has 150 pounds back pressure, which is our gas gathering line pressure and the wells will put out about a million and a half a day.

Q You are talking about the pressures you get as a result of the separator operation?

A No, they do not come through the separator. They come directly into the line in our operation.

Q I will leave that and talk about it with somebody else.

(Go to page 2504)

Q Now just one thing more, - in Exhibit 86, the Madison Proposal for sharing the market, reference is made at Page 3, paragraph "C", to the position taken by the Madison Company which will permit residue gas from crude oil wells to enter the market in excess of their sharing position. I will just read it to you so you will see what it is:

> "It is therefore submitted that Royalite should get full credit for that part of the gas cap Brown allowables which is not produced in order to allow residue gas from crude oil wells to enter the market in excess of their sharing position, the alternative being to flare this residue gas from crude oil wells or instal additional horse-power to return it to the formation for storage."

And then at Page 10 of that submission, Section 15, the statement occurs:

> "This shows the amount of gas from wells connected to the British American plant that will be stored. Under the arrangement whereby British American stores all its own gas in excess of its current sharing position, there will be gas stored in the winter as well as the summer months, in contrast to the Madison and Gas & Oil Products system where this excess is taken up by conserving gas, that is, under-producing the Royalite gas cap below its share in the market a volume equivalent to the excess of crude oil gas available above the share in the market."

Now I rather gathered from your discussions with Mr. Chambers that that is not the position at the moment which is now proposed, particularly in the winter time, to take your residue gas and put it into the mains for consumption ?

A That is right.

Q And that would be the logical thing to do, would it ?

A That would be.

Q And what about the summer time ?

A Our gas cap will be shut in in the summer time for two reasons, one is, we would not have the capacity to return it to the formation if produced, that is the repressuring factor, and the other one is there is no need to produce it. It is much better to produce it when it can be sold in the winter time.

Q So that is when the gas cap wells will be produced ?

A That is right, that is right.

Q I see, and does that mean that we are going to avoid this expense of repressuring in the B. A. area ?

A Not all of it.

Q Well why not ?

A Well there will be certain times, due to fluctuating conditions, when there is more crude gas even available out of that area, even if you have the gas cap shut in, that crude gas is produced right along every day and that has to be handled and if you cannot sell it you put it back into the ground.

Q I see.

A Some equipment, there will be repressuring, there will be more produced at some times than we can sell. As a matter of fact the way the sharing position is set up we have to produce it in order to have it available for market.

Q Well we will put it this way, there will be more produced than you can sell even if the Royalite gas cap is entirely shut in ?

A That is right. There will be some repressuring necessary.

Q But to the extent that there is a market available, your gas will be put into the main under pressure directly rather than repressuring ?

A Oh yes.

Q Without the Royalite gas cap operating at all ?

A As long as we have gas available.

Q As long as you have a surplus ?

A Yes.

Q I will put it this way, as long as you have a surplus residue gas for which there is any market under this scheme the Royalite gas cap will not be called on ?

A That is right.

THE CHAIRMAN: We will adjourn for a few minutes.

(After Adjournment)

THE CHAIRMAN: You had finished Mr. Fenerty ?

MR. FENERTY: Yes.

THE CHAIRMAN: Mr. McDonald.

CROSS-EXAMINATION BY MR. McDONALD:

Mr. McDONALD: Mr. Chairman, I believe at the commencement of this Hearing we filed, or Mr. Blanchard filed, the Petroleum and Natural Gas Conservation Reports as an Exhibit and I was going to have Mr. McCutchin look at the report for the month of April 1945, of the Conservation Board, and possibly it should be filed.

THE CHAIRMAN: I think so.

CONSERVATION BOARD'S REPORT FOR APRIL 1945 PRODUCED AND MARKED EXHIBIT 95.

Q MR. McDONALD: Mr. McCutchin, I show this statement, No.6 of the report of the Conservation Board for April 1945, Exhibit 95, and in the middle of the page is set out the disposition of gas produced in Turner Valley for the month of April, will you tell me the amount of gas shown as wasted on that report before the gas has reached the absorption plant ?

A I am not sure that this figure is the one before it reaches the

absorption plant, it might be the total, from looking at it I would say that is the full waste gas but the figure shown here is 539,296 m.c.f.

Q Yes, and there is another item, absorption plant disposition in Turner Valley ?

A Yes.

Q And there is an item of waste in that, and what is that item ?

A 142,822 m.c.f.

Q It also shows - -

Q THE CHAIRMAN: That last figure is the waste down stream from the absorption plant ?

A Yes. I did not understand that at first.

Q MR. McDONALD: It also shows the amount of gas delivered to the Gas Company ?

A Yes, 1,180,538 m.c.f. delivered to the Gas Company.

Q Yes, and the percentage then of residue gas wasted against the residue gas delivered to the Gas Company is approximately what ?

A Well let me see, the percentage of waste gas to the residue gas delivered to the Gas Company it would be 142 over 1,180, that is about 13% is it not, roughly 13%.

MR. STEER: If it is my figures that you are interested in, I was talking about the gas which was flared.

MR. McDONALD: We will go on.

Q MR. McDONALD: That waste gas then would be the residue gas flared ?

A That is right.

Q Now the first figure of five hundred and some thousand would be wet gas ?

A Wet gas flared, yes.

Q And that is gas that did not enter into the gathering systems at all ?

A That is right, as I understand it, that is correct.

Q So that, now can you tell me another thing, the estimates as to the reserves which were submitted, were finally worked down to a residue gas basis ?

A That is right.

Q And in making those estimates it was finally summarized in Dr. Katz' second submission and in that an allowance had already been made for wet gas produced in the field that was not going into the estimate of residue gas reserves ?

A Yes, he would necessarily have to do that before he could get to a residue gas basis. He must make provision for gas not gathered.

Q Yes. I think it was Mr. R. E. Davis allowed 40% off his original estimate, off his gross estimate ?

A I have in mind a figure between 30 and 40% and I would have to refer to it to be exact but I think 30 or 40%.

Q Now you might look at this, Mr. McCutchin, and tell me if that is a record which will show the disposition of flared gas for the British American system for the four months, I think the first four months of the year ?

A Yes sir it is.

Q I mean is it accurate enough that you can submit it now as an Exhibit in this case ?

A Yes, I think they are correct. They have been prepared and I have no reason to think they are not correct.

MR. McDONALD: I submit this, Mr. Chairman.

THE CHAIRMAN: What is it ?

MR. McDONALD: This is an analysis of gas production in

the B. A. area for the months of January, February, March and April 1945.

DOCUMENT PRODUCED HERE MARKED AS EXHIBIT 96.

Q Now Mr. McCutchin on this statement you have a summary of the gas available to the high pressure compressor station in the B. A. area ?

A Yes.

Q And what is the figure ?

A 1,744,821 m.c.f.

Q And the gas handled by the high pressure compressor station is what ?

A Is 1,574,200 m.c.f.

Q And the gas flared at the high pressure compressor station was ?

A 170,621.

Q Now that gas flared, what happened to it ?

A That gas flared happened through some mechanical difficulties. I think I explain it here in the letter, there is an explanation down below here.

Q Before we go into it, what percentage of gas handled, gross gas handled by the high pressure compressor station was flared ?

A 9.78%.

Q And then you have - -

A For the three month period, no the four month period.

Q Then you have a brief explanation of the gas flared in each month ?

A Yes, I have the explanation here of what happened.

The No. 1, this is January 1945, the No. 1 compressor station went into operation delivering gas to the Madison on January 16th. Prior to that date gas was returned to formation

through one input well which had insufficient capacity. Excess gas was flared. That accounted for 132,709 m.c.f. of the total.

And in February there was 21,943 m.c.f., and the note is:

"February - 21,943. Mechanical down time on No. 1 compressor station due to inability to get delivery of spare parts which had been on order since December 13th, 1944. Some flaring also due to variation in load. Wells not suitably scheduled to produce evenly. Model Spooner No. 1 produced 27,081 m.c.f. in six days, peak 9,581 and low 500."

In March there was only 460,000 m.c.f. flared. That would be less than half a million so there is no explanation for the month of March.

In April there was 15,509 m.c.f. and the note is:

"Mechanical down time at No. 1 compressor station due to inability to get delivery of spare parts which had been on order since December 13th, 1944. Both stations also shut down to make changes on headers and manifolds, as ordered by mechanical branch, Department of Public Works, Government of Alberta. Some gas flared to poor well scheduling."

I might mention about the spare part situation, - due to the war and the high priority and all the difficulty of getting things delivered we had some trouble in getting our spare parts. The trouble has now been, we think, almost entirely overcome because we have the spare parts which we had on order and I will say if the spare parts had been delivered at any reasonable time we would have been all right, because the parts were on order but we just could not get delivery of them.

MR. McDONALD: I might say Mr. Chairman, that I have not copies made of this yet. I did not intend to put it in but it arises out of the cross-examination and I will have copies made and distribute them.

THE CHAIRMAN: Thank you very much.

MR. CHAMBERS: It is now marked as an Exhibit ?

MR. McDONALD: Yes, it is marked as Exhibit 96.

MR. CHAMBERS: That is a letter from the B. A. ?

MR. McDONALD: Yes.

WITNESS: I would say in starting up an operation such as this the producers are not familiar with the necessity of producing at all times at the proper rate to be handled in the compressors and our men are a bit inexperienced in the matter too. They are learning and they are learning well. They are doing a better job month by month in handling this problem and I do not think that this schedule of time in the first three months, with an entirely new set-up, should be used as a yard stick as to what is going to happen over a very long period of time. You will notice we improved the operation as the months go by and I will say for this month up until now there has been less than one million feet flared, that is what I found when I checked up the day before yesterday, so both the producers and operators are working much better all the time, as we get more experience and one of the main things that will help the producing situation is when we get to the matter of payment to producers. When they realize that handling the well improperly will be reflected in the payment they receive, that will cure, I think, nearly all of them, that is I mean when they realize what it means to them when they produce it at a fluctuating rate, that they are losing money, they certainly will not do it.

Q As soon as the monthly cheques come in for a substantial price for gas the producers will co-operate ?

A I am sure they will.

THE CHAIRMAN: And if it is not substantial what will happen ?

MR. McDONALD: Well I think Mr. McCutchin has consistently advocated in his evidence that when you put a value on a thing it will be conserved. That is the human instinct and the less the value the less the desire or ambition to conserve it.

Q I think we have an Exhibit Mr. McCutchin, Exhibit 88 to which is attached Statement 2, which is entitled, "Natural Gas Reconciliation" to the Gas and Oil Refineries area. This is the supplementary report by Mr. Stevens-Guille to his M-5, dealing particularly with the G. O. P. Refinery fuel sharing position. Now the reconciliation shows the wet gas intake and the dry gas output. It shows in the dry gas output for use in the absorption plant, use in operation of fuel refinery, use in gas and oil domestic line and taken by Madison Natural Gas Company compressor and then it leaves a balance burned in flares of 979,528 m.c.f. That would be an estimate for the year 1945. What would that average a day, that 979,528 ?

A 2.65 million a day.

Q Say two and a half million a day ?

A Yes.

Q Now I was interested in applying the principle of sharing the market as advanced by yourself. That 2.5 million a day would be included in the calculation of the sharing position of the G O. P. area ?

A That is right, that will be gas available to the market to the extent that G. O. P. gas was being repressured or conserved.

Q Well that of course, that balance burned in the flare that would not be repressured or conserved gas. There is no local -

A No, you see if this five million feet going up the line to the G. O. P. plant which gas you see under normal conditions about half of that would be sold to the market, just roughly two and a half million to sell and the other two and a half million would be conserved or repressured. That is the set up. In this case the two and a half million were being flared. In the case as I suggest, all of that five million feet would be considered available for market by the G. O. P. and deducting the gas which it flares up to the limit of the amount which is being currently repressured of the G. O. P. gas would be taken off the repressuring or conserved column of calculations. In other words the G. O. P. would not be handicapped so far as the sharing position is concerned, due to the fact that insufficient capacity was put in to handle all their residue gas.

Q Currently what has been happening according to the Exhibit 87 is that the gas being carried through the suction lines to the Madison scrubbing plant is being apportioned, part to the market, scrub market , and part is being conserved and part repressured?

A That is right.

Q Now if this two and a half million that is being burned at the G. O. P. plant is added to the capacity of the suction line, that may mean - it could well mean on many days that the full capacity of the suction line would go right into the market as scrubbed gas ?

A That is right.

Q And that there would be no re-pressuring or no conservation of gas in the Madison system ?

A That is right.

Q For the account of the G. O. P. producers ?

A Incidentally that happens now many times from our area. We do not have to repressure any gas in a day. We put the whole thing up through in a day in the winter time, for perhaps a whole month we have no repressuring at all. As long as the share market is sufficient to take it that has happened frequently with us and with G. O. P. I presume the full five million feet would be needed and their share of the market would equal five million feet in a day.

Q It may be that if your system was adopted the suggestion contained in this Exhibit 88, that the gas consumed in the G.O.P. refinery should be treated as a deduction from the market ?

A It is suggested that it should be.

Q Should be included in the market ?

A That is exactly a parallel case to Bow Island gas or the gas we sell to drilling wells. I have been considering it that we have to treat it some way. I consider it as a separate market and handle it as such. Now it could be put in the whole thing but it is a different method. I would not say one was right or the other was wrong. It is certainly two different ways of handling the problem.

Q You have calculated just what the increase would be in the G. O. P. share of the market on your basis as against the Madison basis ?

A We have not worked out the detailed proposition. It would involve a lot of assumptions and once having made the assumptions you make the answer. If you assume a certain position you get the answer or as many variations in your answers as your assumptions but the effect is it will give the G. O. P. a larger

share of the market if you consider the flared gas or re-pressured or conserved. Then if you deduct it from the market the degree will depend upon the assumptions made as to how much they are going to flare.

Q Now your suggestion also is I take it the gas cap in the G.O.P. area should be treated on a similar basis as the gas cap in the B. A. and Madison areas ?

A I say they should be given the opportunity of handling it that way if they so desire. It is not essential or necessary but it could be done that way but if they want to do it that way I see no reason for excluding them.

Q The wording of your proposal would still enable them to take their annual allowable and divide it into twelve parts and produce it monthly if they wish to do so ?

A Yes, there is no prohibition against it in the suggestion if they want to do it that way that could be done.

Q And they would also have the alternative if the Conservation Board fixed the allowables that way to take it yearly ?

A That is right, if they are interested in the gas market primarily they will do it on a yearly basis because it will give them I believe more gas going to market.

Q So that in effect the wording of Exhibit 91, which is the Schedule "A" submitted by the Madison, the wording is:

> "The volume of natural gas delivered, during the month from wells to the G. O. R. plant shall, at the end of the month, be converted to residue or dry gas".

There is really no practical difference in effect between any practical operations of operating under your wording and operating under the wording of Exhibit 91 ?

A In one case, are you reading from our Exhibit now ?

Q No, from Exhibit 91.

A I say that they do not give G. O. P. the opportunity even of having their allowables used as such for computing the sharing position. Now if I am wrong I stand corrected on that. My understanding on reading it they do not. The allowables to be used in the same way as the Madison.

Q If the G. O. P. elected to take their allowables monthly there would be no difference between the systems ?

A That is right. That is right as far as that point is concerned. It does not mean the whole thing.

Q Yes, it is not correct on the question of flaring ?

A No it is not.

Q Will you look at your Exhibit 94 submitted by yourself. In the last paragraph you deal with variation in utility company earnings may arise if flared gas is deducted from the gas available to the market sharing position, rather than from the repressured operations of the gas. What did you have in mind in that ?

A Well if there is any big variation in the percentage of gas flared at one plant or another, any loss of income which the B. A. system loses during a month due to failure to deliver gas or having their market sharing position cut down, will accumulate to the rest of the other utility systems because some one will have to pick it up and it will be picked up in Madison naturally and vice versa if they should have a large amount of flared gas monthly we would have a bigger share of the market because we would have more available to their set-up and our income would be higher than contemplated. In one case it comes off one and piles up on the other, so you want to keep the market sharing position on as even a percentage as you can and have it run smoothly. If one utility company loses

it the other necessarily picks it up and you have a minus on one side of the ledger and a plus on the other side which makes a wide variation, so if you can have a system which will provide uniformity and have the minus on one side and the plus on the other either way it occurs you make for less adjustment.

Q Putting it this way, if the Madison system should be calculating its operating expense on a unit depreciation basis or rate of return arising out of units handled, the expense will depend entirely on the number of units handled ?

A Yes, the depreciation I would say, not the expense.

Q As contrasted to that the B. A. system is being depreciated under a straight line method. The amount of income which it receives will depend upon the amount of gas it handles ?

A That is right.

Q And there is a possibility that if it does not handle the calculated amount of gas throughout the year it will show a deficit on its earnings ?

A That is right. We would have to ask that the rate be adjusted.

Q Because of the fact there are fixed charges that are not depending upon unit operations ?

A That is right.

Q Now arising under your system deducting the flared gas from the cheapest gas available repressured side of the ledger, that would mean you would handle in any month your full market sharing position, other things being equal ?

A Yes, that is right, of the other gas.

Q And you would have closer to what your estimated earnings would be ?

A Yes I think it would work out that way.

MR. McDONALD: That is all.

MR. BLANCHARD: I have no questions.

MR. CHAMBERS: At the conclusion of your cross-examination by Mr. Fenerty, did I understand you to say to him that under the B. A. proposal during the winter months, the B. A. would deliver crude oil residue gas in excess of its share position to the Madison plant and that the Royalite gas cap would be shut in proportionately ?

A I say that we would deliver all the crude oil residue gas we had over. We might run for over a month as we have done in the past but it does not mean there would be any final adjustment on it. The next month we would cut back and deliver less on our share position. We would have the same for the portion of the year. It does not mean that it is by days or months, it has to be on a even keel.

Q In actual fact the B. A. under its proposal will still re-pressure gas from crude oil wells except on peak load days ?

A It all depends upon how it works out. It possibly will.

Q It will during the winter months sometimes ?

A Some winter months there will be some repressuring, yes. Any excess of gas we do not have in our share market will go back into the ground.

Q Mr. McCutchin, as I recall it when you were in the witness box before in dealing with the question of reserves you indicated that you had considerable experience in the United States in the oil industry and also in the gas industry. Was I right in that ?

A Well I have not been in the gas utility industry if you mean that. Natural crude oil and gas occurs together and where you find one you find the other and I have dealt with the matter of oil and gas reserves from experience in quite a few years. I

am not qualified as a utility expert if you are referring to that.

Q No.

A I have never operated a utility company.

(Go to Page 2520)

Q And I am leading up to this question, and you will understand why I asked you the previous one. It is my understanding, and I think Mr. Ralph Davis said something about it, that any gas companies in the United States that are supplying cities and towns own or have arrangements to obtain gas reserves to take care of the market requirements several years hence, do you know anything about that?

A I only can speak generally. I have not had any specific experience along those lines, but I would, speaking generally, say I know that to be the case generally, although I cannot give you any specific details.

Q Do you have sufficient information to tell us whether the expense of acquiring and carrying those future reserves is charged to the rates currently imposed on the consumers?

A Mr. Chambers, these questions are more concerned with utility company operations, I believe, within my experience, and I hardly feel qualified to be of any help along those lines.

Q I see?

A I really do not.

Q I figured you would probably not be back again and I just wanted to find out.

A I do not want to tell you something that I do not know, and I do not want to indicate that I have information if I have not got that background of experience.

Q Now in answer to Mr. McDonald a few moments ago, I understood you to say that you think the G.O.P. gas that is flared due to the line from the G.O.P. from Madison No. 3 plant not being a larger one, should be regarded and taken into consideration for the purpose of computing the sharing position, is that right?

A That is the submittal, yes.

Q Now on the same basis of reasoning, why should not these wells in the North end that are not connected and in which gas is being flared, be also considered for the purpose of computing the sharing position?

A Well it is a sort of chain of events here, and we are picking some cut-off point as I see the problem. Maybe we are making sort of rules of the game, and I do not know how big you should make the playing field, whether you should make it covering the whole country or one lot. It is purely a matter of some reasonable solution to the problem, I think.

Q Well....

A Just let me finish, Mr. Chambers. In one case one might have the idea to sell all the gas to be flared out at a certain point and others might say "I want to include it in". There is a series of chains of operations. One person takes one and another person takes another, and I do not know what the right one is.

Q Would it be fair to say that the cut-off that you have adopted here is the one which is actually connected to the system and the other one is not? That happens to be the case anyway?

A That happens to be the case in the one you have illustrated.

Q Assuming there were a line of one or two inches, an inexpensive line, connected to these wells in the North end that are not now in, they would be physically connected to the system would they not?

A That is right.

Q Now, if that were done, and on the basis of your reasoning, would not all the gas that was flared up there from those wells, and it would be, I suggest 95% of it, could not they

with just as much justice suggest that those flares should be considered for the purpose of working out a sharing position?

A If you want to carry the reasoning to the extreme, which I think is doing so, you can include it all or exclude it all. It is just the point where you are going to set up the rules or draw the line or whatever you want to refer to.

Q I understand that in your last answers to Mr. McDonald that you pointed out the merit of the B.A. scheme would avoid these pluses and minuses, I think you used, as between the utility companies?

A That is right.

Q And it saved adjustments throughout?

A I think it would.

Q And let us assume that so far as the utilities are concerned, the utilities concerned, it does not make any difference because in the end they get their rate of return and so on?

A It is only a matter of convenience to keep from going and having the rates adjusted. It is considerable trouble getting the rates adjusted. It is a matter of convenience.

Q Let us assume it does not make any difference to the utilities, I suggest it might make a difference to the producers as between those in different parts of the field?

A Oh yes, they are vitally concerned with this sharing position because their income is directly in proportion to it.

Q And with the adoption of yours, taking it by and large, the adoption of your scheme would probably result in less revenue accruing to the North end producers?

A And conversely, the adoption of the Madison scheme would result in a larger amount to the North end producers?

Q Yes?

A I think so.

Q So that it is a matter that might affect the pockets of the producers in the various parts of the field.

A No doubt.

Q That is all thanks.

THE CHAIRMAN: Anything further?

.....

RE-CROSS-EXAMINATION BY MR. FENERTY

MR. FENERTY: There is a question I want to ask, I think I have reduced it to sense, and I thought so when I was speaking to Mr. McCutchin before. The thing I was trying to get at with reference to compression is this, Mr. McCutchin, I suggest to you that the capacity to produce of the Turner Valley wells is such that if operated as a fuel gas operation without reference to an equitable apportionment between the wells, that is, the sharing of the market between wells, they could supply sufficient gas at pressures that would provide for scrubbing losses and permit entry into the gas lines of the Canadian Western Company to take care of a future anticipated market without compression operations, is that so, or is that all wrong?

A Mr. Fenerty, my understanding is that the No. 1 Royalite plant, previously the No. 1 Royalite plant, now the Madison plant, that it had four or five 600 horsepower compressors installed there that were installed for the sole purpose of delivering gas to the market.

Q Yes?

A So that they could actually deliver gas to the market, and that was before there was any thought of the utility company,

so that I presume they put that in through necessity, to deliver it to the market, as they cost a lot of money.

A And no matter how short an interval you would have?

A Probably with regard to the high market or the peak loads' situation that that was most likely necessary. In other words, the answer to your question is that they were needed and they were necessarily installed, to meet the market demands before the utility company was thought about.

Q In order to get the volume of gas required from any wells, any group of wells, you would have to have such a drop in pressure that compression would be necessary.

A Yes sir.

Q No matter at what short intervals you operated?

A No, I would say no matter at what short intervals you operated at, but we would assume that peak loads last six or eight hours or a day or so.

Q But for practical purposes you could not operate them for sufficient length of time at a pressure that would give you the volume of gas?

A Yes. I say that is the reason they put the equipment in because it was necessary.

Q There was no way that you could adjust it that would maintain the pressure according to the volume?

A No. I think that the first thing they would have thought of would be doing that, before they installed the compressors, and they only installed them because they thought that they were necessary.

Q I see, all right.

THE CHAIRMAN: I think that is all. Thank you, Mr. McCutchin.

DR.BOOMER: I have a question or two.

THE CHAIRMAN: I am sorry.

Q DR. BOOMER: About this business of compressors, it is true, is it not, that the gas cap wells have about 500 pounds per square inch?

A Yes.

Q Closed in top hole pressure?

A Yes, that is right.

Q Have you any idea what the top hole pressure is when they are being drawn on?

A In the South end of the field where the closed in pressure is approximately the same as other places, we operate our gas gathering systems there at 150 pounds, and those gas wells, generally they are individually working, and we open them and have 150 pounds back pressure line, and we can get about 100 million, one million and a half feet out of the well that day, and the next day 750,000 some feet, the next day half a million, until they will level off at some pressure where you are getting from 300 to 400 thousand feet out of the wells at 150 pounds back pressure. The wells are individual performers. It is the question of the permeability of the rock and how big a gas well it is, but that is the current performance of the wells at 150 pounds pressure.

Q And could not deliver any appreciable quantity of gas to enter the system at sufficient pressure to get to the scrubbing plants?

A No sir, I do not believe it would work at all, that is out of the question.

Q And with respect to your experience and information as to

the other gas caps in the area in that regard?

A I would say that the situation would be quite similar.

Q You think the situation would be quite similar?

A Yes, I think it would be quite similar.

Q Would I be right in describing your Schedule "A" as a proposal in which the total volume of gas downstream from the absorption plant would be a significant quantity in setting up the sharing position?

A Yes sir, that is correct.

Q And any flared gas is to be treated as though, that is for accounting purposes, as though it was conserved or repressured?

A It has to be deducted from those items.

Q Your absorption plant was installed in 1936?

A Yes sir.

Q What was its capacity that it was operated at at that time?

A I believe it was 50 million could be put through there.

Q Do you know why the company put in a 50 million equipment plant?

A No sir, I do not. I do not think they had 50 million feet to put through it. I think they bought it secondhand, for one thing. It is like buying a house secondhand, you do not necessarily fit the picture, you go and buy something that is available at a reasonable price, and I think that was the reason it was bought because there was one of that size available.

Q Do you know what the quantities of the gas available in the British American area was, say in1935 and 1936?

A There was lots of gas available. There was lots of gasoline produced. I believe there were gas wells prior, and the oil area came in, that was in 1936, and there was considerable

gas produced, some of it going to Royalite No. 2 plant, and a lot being flared and so forth and so on. I do not know whether there was 50 million feet, but I do believe it had 30 or 35 million feet at that time.

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Q You do not know whether that Plant had a chance of getting anything like its full quota of gas, that is to its capacity?

A No, I do not know that. The records would show that. I do not really know what that is.

MR. CHAMBERS: I have Mr. Mercer available. I will call Mr. Mercer. I would like to make this observation. He is going to deal with R-1 that was prepared in the light of certain circumstances and certain things have happened since and frankly we have not given any real consideration to that. There may be something that we would want to amend in this submission later on.

THE CHAIRMAN: I thought we would do this, Mr. Chambers, put in evidence today R-1. No cross-examination. We will adjourn when that is in. Then between now and the time we resume you will have an opportunity of amending it if you wish before cross-examination.

MR. CHAMBERS: I could also on that basis probably place in evidence our R-3 which deals with price. It is not directly relative to this heading but it might unfold the picture. I suggest that because it has the Bow Island contract in it. There is one thing occurs to me, that before we come to the end of this sharing position we might be interested, and the Board might be interested, in hearing from the G.O.P. Both the B.A. and the Madison are working on assumptions. We do not know what the G.O.P. wants to do or what they intend to do.

THE CHAIRMAN: I do not propose to telephone them, Mr. Chambers, and tell them they had better do something about it. Someone else can do that.

MR. CHAMBERS: I do suggest the Board can say that "we want to know."

THE CHAIRMAN: But Mr. Chambers they have had copies of all these statements have they not?

MR. CHAMBERS: Oh yes.

THE CHAIRMAN: And they are not concerned to come here apparently. I am certainly not going to go and say "please will you do something about it". I never like saying please anyway and I am certainly not going to do it under these conditions.

MR. CHAMBERS: For the purposes of the record can you tell us whether the G.O.P. got a copy of Exhibit 88?

MR. McDONALD: Yes, the Gas & Oil Products represented by Mr. Gray and Mr. Jones attended the meetings of the Producers' Committee at which the discussions were held concerning the sharing position, along with Mr. McCutchin and Mr. Trammell and Mr. Stevens-Guille and they provided us with the information that is contained in Table 2 of that submission and after the error which Mr. Stevens-Guille referred to had been located, as soon as I received that information, I had the write-up completed by Mr. Stevens-Guille and they were then furnished with a copy.

THE CHAIRMAN: I suppose really the position is that they have such supreme confidence in the Board that they do not feel it necessary to come here at all.

MR. McDONALD: I might do this, so that the matter will not be overlooked, I will furnish them with a copy of the transcript of this last three or four days' proceedings and ask them to consider it and see if there is anything they wish to make a submission on.

MR. CHAMBERS: That is very satisfactory.

RUSSELL DANFORTH MERCER, having been duly sworn, examined by Mr. Chambers, testified as follows:-

Q Mr. Mercer, you are the Secretary Treasurer of the Royalite Oil Company Limited?

A Yes sir.

Q You have held that position since March, 1941.

A Yes sir.

Q And prior to March 1941 you had been in the service of the Royalite Company from 1930, is that right?

A That is right.

Q As statistician and Chief Clerk?

A Correct.

Q You have prepared as I understand it and have with you a document, copies of which have been filed or furnished to the Board and the various parties, known as R-1?

A That is right, sir.

DOCUMENT IN QUESTION IS
NOW MARKED EXHIBIT 97.

Q Would you just explain in a few words what this document, Exhibit 97, is and then read it in, with such comments that you care to make as you go along?

A Exhibit R-1.

Q Exhibit 97.

A Exhibit 97, I am sorry. Exhibit 97 is:

SUBMISSION BY ROYALITE OIL COMPANY, LIMITED IN RESPECT OF THE SHARING OF THE MARKET FOR NATURAL GAS AND THE REPRESSURING OF AND THE CONSERVATION OF NATURAL GAS.

(a) Sharing of Available Market

Any proposal in connection with the marketing and conservation of gas should be predicated on the theory that each producer of gas share in the available market for gas

in the ratio that the gas allowable from each individual well bears to the total gas available for market, subject however to the adjustments hereinafter mentioned.

In determining the sharing position of each producer of gas to the available market Royalite Oil Company, Limited submits that four factors have to be taken into consideration as follows:

(1) That as in the past the Petroleum and Natural Gas Conservation Board will issue orders granting Royalite controlled gas cap wells allowables calculated in accordance with the principles entering into the calculation of present allowables. Such allowables converted to a residue or dry gas equivalent will represent "Factor #1".

(2) The volume of wet gas delivered from crude oil wells to the Madison Natural Gas Company Limited wet gas gathering system will be considered as the allowables of crude oil wells which in turn will be converted to a residue or dry gas equivalent. From the results of this calculation will be deducted any residue or dry gas delivered back to the producer for lease or drilling fuel. The net results of these calculations will represent "Factor #2".

(3) Residue or dry gas as delivered by British American Oil Company Limited and/or Gas and Oil Products Limited as measured at the inlet to the Madison Scrubbing Plant (to be allocated to British American and/or Gas and Oil Products on the volumes of gas as delivered by these two Companies and measured at the junction point near Hartel where the British

American residue gas transmission line and the residue gas discharge line from Compressor Station No.3 meet) will be considered as gas allowables already converted to a residue or dry gas equivalent and will represent "Factor #3".

(4) Residue or dry gas not delivered into the Madison System by the British American Company but returned directly to the formation by that Company will also be considered as gas allowables for the purpose of ascertaining share of market. Quantities will be as delivered to the Compressors and as such quantities are already expressed in terms of residue and dry gas will represent "Factor #4".

(5) The total gas entitled to share the market will be the total arrived at by adding together Factors 1, 2, 3 and 4.

(6) The share of each producer in the market (British American and Gas and Oil Products to be each considered as a producer for this purpose,) will be the percentage which each producer contributes towards the total calculated by adding together Factors 1, 2, 3 and 4.

Royalite together with the following associated Companies, Foothills Oil and Gas Company Limited, Southwest Petroleum Company Limited, Dalhousie Oil Company Limited, Lowery Petroleums, Limited, and Imperial Oil Limited, all producers of crude oil and natural gas in Turner Valley, join in support of the foregoing submission as being in all respects just and reasonable.

(b) <u>The return to the formation of residue gas produced in excess of gas marketed and used and lost in operations.</u>

In any scheme for the conservation of gas resources, an essential feature is the return to the formation of all available residue gas which is in excess of the gas required for the market and the gas required in operations and lost during the course of such operations. It is anticipated that gas will be available for repressuring from the Madison System and Royalite is agreeable to undertake the repressuring of this gas in certain of its wells, the same to be marketed by Royalite at some date subsequent to the repressuring. For purposes of this submission it it estimated that this date will be fifteen years after the date of repressuring, which is supported by evidence already submitted or to be submitted.

Admitting that Royalite may in the future market repressured gas, Royalite is prepared, in principle, to purchase from Madison such repressured gas, it being understood that Madison would distribute the proceeds thereof to all producers in accordance with the percentage which each producer contributes towards the total gas calculated by adding together Factors 1, 2, 3 and (a) of this submission.

The purchase price for repressured gas should be based upon the price set for residue gas at the well head but should take into account the fact that the well head price will not be realized by Royalite until fifteen years have elapsed. A fair price to be paid for repressured gas at the time of repressuring should therefore be a price that will, compounded for the fifteen year period at a fair rate of interest, be equal to the price set for

residue gas at the well head. It is suggested that the price for residue gas at the well head, once set should remain constant in order that Royalite may receive neither more nor less than the moneys invested in repressured gas plus interest on the moneys so invested and in order that the sale price for repressured gas received by the producer plus interest for fifteen years will be neither more nor less than if the producer produced and marketed such gas fifteen years hence.

A suggested formula for ascertaining the price to be paid for repressured gas is set forth in Royalite Report R-3.

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(c) Purchase by Royalite of gas to make up the difference between gas produced from gas cap wells and the share of gas cap wells in the market.

The maximum gas volume currently available to Madison consists of gas allowed to be produced from gas cap wells plus the gas produced from crude oil wells (and not used in operations or returned as drilling fuel). The volume of gas available is estimated to be in excess of the available market and in any scheme for the conservation of gas resources it is an essential feature that, to the greatest extent possible, gas in excess of current market requirements should be conserved in the ground; such conservation to take the form of the return of gas to the formation if necessary. In Section (b) of this submission it is assumed that all gas allowables would be produced and that all of the gas in excess of requirements would be physically returned to the formation.

Gas produced from crude oil wells is necessarily produced as a part of crude oil operations and the production of gas from those wells cannot be varied upwards or downwards without at the same time affecting the production of crude oil. In the interests of economy, the plan to effect conservation introduced by Madison provides for the maximum utilization of gas produced from crude oil wells and the producing of gas from gas cap wells only when made necessary by market demands, thereby keeping the amount of gas physically returned to the formation to a minimum. Royalite appreciates that economies could be affected by the adoption of the plan and is prepared to lend its support provided that the market sharing position of individual producers, including Royalite, is not prejudiced. It is submitted that if economy measures in effecting repressuring were not a consideration,

Royalite gas cap wells would normally produce their share of market in line with other producers and that although, for reasons of economy, gas cap wells may not produce to the extent of the allowables, these wells are still entitled to their share of the market as outlined in (a) of this submission. It is further submitted that gas cap wells not owned 100% by Royalite should be allowed to currently produce their full gas allowables so that the conserving of gas would be effected by the closing in of Royalite wells only.

The practical effect of this plan would be that certain gas from crude oil wells and some gas cap wells in excess of the market sharing position would be delivered to the market and therefore would not be available for repressuring. On the other hand, an equal volume of gas would be left in the gas cap and therefore would not be available for delivery to the market. In order that Royalite may be able to deliver to the market its share of the market applicable to its own gas cap wells, it becomes necessary that the difference between Royalite's actual production of gas from gas cap wells and the amount of gas that it could produce in accordance with its share of market be purchased by Royalite. As in the case of repressured gas, Royalite would purchase this gas from Madison and Madison would distribute the proceeds thereof to all producers in accordance with the percentage which each producer contributes towards the total gas calculated by adding together Factors I, 2 and 4 of (a) of this submission.

Fundamentally this gas is purchased for repressuring and the diverting of such gas to the market in substitution for an equal volume of gas not produced from Royalite's gas cap wells but left in the formation is purely an economy measure. Such gas

left in the formation is of the same nature as if it had been actually produced and returned to the formation by means of repressuring. As in the case of repressured gas it is estimated that conserved gas will not be marketed until after the fifteen year period after the date of purchase and it is submitted that the price to be paid by Royalite for such conserved gas should be at a price equal to the price to be paid for repressured gas.

Royalite Oil Company, Limited has instructed me to state that if Royalite produces less gas than its share of the market from its gas cap wells it is to be allowed to purchase the difference between its actual production and its share of the market from crude oil producers on a ratable basis at a reduced price, which gas Royalite will sell to the market in lieu of producing its allowables from its gas cap wells.

Q MR. CHAMBERS: The observation which I made before with respect to R-I applies with greater force to R-3 and I would really like to have it marked in a sense that it is being marked for identification.

THE CHAIRMAN: Is the next one very long, Mr. Chambers?

MR. CHAMBERS: There is the contract, the Bow Island contract, which is a considerable portion of it. The report itself is six pages.

MR. STEER: Mr. Chairman, it strikes me we are going to have some discussion as to the programme after we resume and I suggest we go on with that before any other submissions are put in.

THE CHAIRMAN: I had that in mind, Mr. Steer.

MR. CHAMBERS: The only reason I suggested this was because it had the Bow Island contract but they all have that anyway.

THE CHAIRMAN: Yes, they all have the contract. Therefore,

your cross-examination, Mr. Mercer, will be postponed until the Hearing is resumed.

Now I think it is agreed by everyone, except Mr. McDonald perhaps, that we will not sit in July or August and that is my own inclination.

MR. FENERTY: Agreed.

THE CHAIRMAN: I know Counsel are taking holidays at different times. I know that many of the professional witnesses have to take holidays in these two months and the Court Reporters cannot resume in any event until the 15th of August, that would be the very earliest date and while I would like to have made more progress than we have made and will make, I can see nothing for it but to adjourn until the first Tuesday in September.

MR. CHAMBERS: The day after Labor Day?

THE CHAIRMAN: That is right.

MR. HARVIE: The fourth of September..

THE CHAIRMAN: The fourth of September I think is the date and then I think when that date comes we should resume and finish the market sharing position and then go back to the rate base and allied subjects respecting Madison, which have not yet been finished, and then take the British American, and follow the Agenda from then on.

MR. HARVIE: I thought perhaps that might be the procedure adopted, Mr. Chairman, and we have made tentative arrangements for Mr. Teis and Mr. Donellan and the other British American witnesses to be here on the week commencing the tenth of September.

THE CHAIRMAN: That should work in quite satisfactorily. Is there much more to yours, Mr. Chambers.

MR. CHAMBERS: No, Not on the rate base and operating

expenses and so on.

THE CHAIRMAN: You may be finished with that?

MR. CHAMBERS: Yes, and the Bow Island situation.

THE CHAIRMAN: Then Mr. Steer has a witness on that.

MR. STEER: Yes, and it would appear to me that we should bring him up here for the week of the fourth of September and that being so, it might be that we would not be ready for Mr. Harvie's witnesses during the next week unless we are going to sit more than three days a week. I can see Mr. Mercer's examination and cross-examination may be fairly extensive.

THE CHAIRMAN: Yes.

MR. HARVIE: I think possibly we can be ready to go ahead on the tenth of September.

THE CHAIRMAN: But it would not matter if it was the 11th.

MR. HARVIE: Oh no, not for a day or two.

MR. CHAMBERS: Is there any idea that we may sit more than three days a week.

THE CHAIRMAN: I have not any such ideas at the moment, Mr. Chambers.

MR. CHAMBERS: I think personally that Counsel can accomplish as much by sitting the three days as we would if the sittings were longer.

MR. HARVIE: I think so too.

MR. McDONALD: I have a suggestion, Mr. Chairman, that the marketing be taken first on the fourth and then continue with the sharing position, if there is sometime available in the balance of that week. I think it is important that the valuations should be finished as soon as possible.

THE CHAIRMAN: It is only fair that witnesses like that should know what they have to meet and therefore waste as little

of their time as possible, so if that suits everyone then we will start with your witness, Mr. Steer, on the fourth and if there is any time left that week we will take up the sharing position and we will get ready for your witnesses as quickly as possible after that, Mr. Harvie.

MR. HARVIE: Is Mr. Steer's witness, Mr. Martin?

MR. STEER: Yes, Mr. Martin, he is the witness who is being called in connection with the purifying plant.

THE CHAIRMAN: Then we will adjourn now.

(The Inquiry was here adjourned to be resumed at 9.30 a.m. on Tuesday September 4th, 1945.)